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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,110	07/24/2001	Peter L. Froeberg	TRMB928	5579

7590

07/20/2004

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EXAMINER

LOUIS JACQUES, JACQUES H

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,110

Applicant(s)

FROEBERG, PETER L.

Examiner

Jacques H Louis-Jacques

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-8,10,12-15,17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8,10,12-15,17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 19, 2004 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5-8, 10, 12-15, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen [6,060,993] in view of Green et al [6,349,263].

Cohen [6,060,993] discloses a mobile display system, wherein a vehicle is equipped with externally viewable display panels. According to Cohen, an onboard controller determines the position of the vehicle and drives the display to generate a publicly viewable message selected for viewing, within such location. The message is selected and displayed based on a prescribed schedule, i.e., date, time of day, etc. Cohen discloses a position determination system (GPS, 18) for determining the position and direction of the vehicle, a controller (16) couple to the position determination system

(GPS), a storage unit (memory) coupled to the controller and adapted to stored different messages, a display (14) couple to the memory and the controller for displaying a message selected by the controller, wherein the controller selects a message based on the position and direction of travel of the vehicle. Display (14) mounted on top of a vehicle 12 (figure 1) external to the vehicle and viewable by an audience external to the vehicle. According to Cohen, which well known in the art, there is provided a receiver coupled to the position determination system for receiving the position and direction of travel of the vehicle. Cohen discloses a GPS receiver (column 4). As described in column, the controller is in communication with one or more fixed stations, wherein data are downloaded from the one least one fixed into the memory of the system, therein updating contents thereof periodically. See column 4. Cohen also discloses the length of amount time the selected message is to be displayed (abstract). Figure 4 shows a GPS (18) and vehicle monitor (15). In column 4, Cohen discloses the status monitor (15) of vehicle parameters, e.g., vehicle speed, direction, outside temperature, weather conditions, etc. is carried by the vehicle 12 with the controller 16 receiving status data signals indicative of the monitored parameters. See lines 23-26. The controller, according to Cohen, selects a message content to be displayed based on data from a GPS (18) and direction of travel as monitored by vehicle monitor 15. See figure 4. Furthermore, in column 4, lines 42-46, Cohen discloses that "the controller 16 thereafter drives the display with the appropriated display message content coordinated with the vehicle location as monitored from the GPS receiver 18 ... as well as the monitored parameters". The monitored parameters include direction [of travel] of the vehicle. See also column 5. While Cohen disclosed

determining the position of the vehicle using GPS and a "vehicle monitor" (15) for determining vehicle parameters such as the direction of travel of the vehicle, Cohen does not particularly disclose that the use of an integrated position and direction system comprising of a digital compass and a GPS. *Green et al*, on the other hand, discloses an integrated position and direction system. The integrated position and direction system comprising a digital compass (4) and a satellite positioning system (3), both of which are coupled to a controller (1). Thus, it would have been obvious to one skilled in the art at the time of the invention to be motivated to modify the mobile display system of Cohen by incorporating the integrated position and direction system of *Green et al* because such modification would enable a user to determine direction of travel even when the GPS is not moving, while at the same time provides a more accurate position and direction determination.

4. Claims 1-2, 5-8, 10, 12-15, 17 and 19 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen [6,060,993] in view of Loffert et al [6,308,133]

Cohen discloses the limitations as set forth above. However, while describing determining the position of the vehicle using GPS and a "vehicle monitor" (15) for determining vehicle parameters such as the direction of travel of the vehicle, Cohen does not particularly disclose that the use of an integrated position and direction system comprising of a digital compass and a GPS. Loffert et al, on the other hand, discloses an adaptive navigation system having a measurement arrangement (2) for supplying both position and direction, wherein a controller (1) is supplied with the position and direction

for outputting navigation instructions. As described in column 2, the single or integrated position and direction arrangement (1) comprising an electronic compass and a global positioning system (lines 45-58). Thus, it would have been obvious to one skilled in the art at the time of the invention to be motivated to modify the mobile display system of Cohen by incorporating the integrated position and direction system of Loffert et al because such modification, as suggested by Loffert et al in column 2, would provide precise navigation instructions.

5. Claims 1-2, 5-8, 10, 12-15, 17 and 19 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Berstis et al [6,442,473] in view of Green et al [6,349,263].

Berstis et al discloses a method and apparatus for presenting traffic information (message) in a vehicle. The vehicle, according to Berstis et al, includes a location and direction determining system for determining a location and direction of the vehicle, wherein a selection system is used for determining appropriate traffic information to be displayed based on the determined location and direction. See abstract, column 2, figures 4 and 10. As described in column 3 and shown in figure 4, the vehicle has a global positioning system (410, 412) and a compass with a directional receiver (420). See column 5, lines 16-20, column 6, lines 59-65 and column 7. In columns 912, Berstis et al describes "a location and direction determining means", however the location and direction determining means is not shown as being an "integrated position and direction system". Green et al, on the other hand, discloses an integrated position and direction system. The integrated position and direction system comprising a digital compass (4)

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and a satellite positioning system (3), both of which are coupled to a controller (1). Thus, it would have been obvious to one skilled in the art at the time of the invention to be motivated to modify the system of Berstis et al by incorporating the integrated position and direction system of Green et al because such modification would enable a user to determine direction of travel even when the GPS is not moving, while at the same time provides a more accurate position and direction determination.

6. Claims 1-2, 5-8, 10, 12-15, 17 and 19 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Berstis et al [6,442,473] in view of Loffert et al [6,308,133]

Berstis et al discloses the limitations as set forth above. However, while describing determining the position of the vehicle using GPS and a "vehicle monitor" (15) for determining vehicle parameters such as the direction of travel of the vehicle, Cohen does not particularly disclose that the use of an integrated position and direction system comprising of a digital compass and a GPS. Loffert et al, on the other hand, discloses an adaptive navigation system having a measurement arrangement (2) for supplying both position and direction, wherein a controller (1) is supplied with the position and direction for outputting navigation instructions. As described in column 2, the single or integrated position and direction arrangement (1) comprising an electronic compass and a global positioning system (lines 45-58). Thus, it would have been obvious to one skilled in the art at the time of the invention to be motivated to modify the system of Berstis et al by incorporating the integrated position and direction system of Loffert et al because such modification, as suggested by Loffert et al in column 2, would provide precise navigation instructions.

Response to Amendments & Arguments

7. The amendments and arguments filed along with the request for continued examination on May 19, 2004 have been entered and carefully considered by the examiner.

In particular, Applicant has cancelled claims 3, 4, 9, 11, 16 and 18 and amended claims 1-2, 8, 10, 15, and 17.

Claims 1-3, 5-10, and 12-19 were found to be anticipated by Cohen [6,060,993] and Claims 4 and 11 were found to be obvious over Cohen [6,060,993] in view of Polyakov [US 2001/0052841 A1].

The cancellation of claims 4 and 11 renders the obvious rejection moot. However, the limitations of cancelled claims 4 and 11 are now incorporated into their respective base claims.

Independent claims 1, 8 and 15 have been amended to recite "an integrated position and direction system", wherein the integrated position and direction system comprising: a digital compass and a satellite positioning system (GPS). Emphasis added.

In the remarks section of the response, Applicant contended that "Cohen does not show or suggest an integrated position [direction] and direction determination system that includes both a satellite positioning system and a digital compass as recited in the claims." See response at page 9. The examiner agrees.

The Polyakov reference was used for disclosing the use of a digital compass. However, Applicant argued, "Polyakov does not show or suggest a digital compass. In fact, the word "digital" does not even appear in Polyakov." Applicant also asserted that "without the showing or suggestion of a digital compass, Application respectively submits that

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Polyakov (alone or in combination with Cohen) does not show or suggest a digital compass integrated with a satellite position system on board a mobile vehicle, ..." See response at page 10.

First, the mere fact that the word "digital" does not appear in Polyakov is not an indication or basis to conclude that Polyakov fails to teach the direction of travel of the vehicle. Exact identity or the use of the same (identical) is not required for a 102 or 103 rejection. It is only necessary that the reference teach the claimed limitation (i.e., the function). In any event, Figure 2 of Polyakov shows a location determination means (7) for determining a location of the vehicle an additional location determination means (11) comprising a compass (22) for determining direction. Both the location and direction are supplied to an onboard computer for selecting a content to be displayed on display (4). However, one could argue that the GPS and compass of Polyakov are not part of an "integrated position and direction system". Notwithstanding Applicant's arguments, a new ground of rejection has been applied against the claims as amended.

The patent to Green et al [6,349,263] has been discovered to disclose an integrated position and direction system, wherein the integrated position and direction system comprising a digital compass (4) and a satellite positioning system (3), both of which are coupled to a controller (1). The use of such integrated position and direction system would enable user to determine direction of travel even when the GPS is not moving, while at the same time provides a more accurate position and direction determination.

In addition, Loffert et al discloses an adaptive navigation system having a measurement arrangement (2) for supplying both position and direction, wherein a controller (1) is

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supplied with the position and direction for outputting navigation instructions. As described in column 2, the single or integrated position and direction arrangement (1) comprising an electronic compass and a global positioning system (lines 45-58).

Van Roekel also discloses a navigation system for a vehicle. The navigation system having a sensor unit (9) comprising of an electronic (digital) compass and a GPS. Based on the direction and position as determined by the sensor unit, information is selected by a controller to be outputted on a display or output device (6).

Beason et al discloses a GPS device with compass and altimeter for displaying navigation information. According to Beason et al, as described in column 1, there is provided a single or integrated unit that combines a GPS unit and an electronic compass. Additionally, Beason et al discloses a single or integrated unit that combines a GPS unit and an electronic compass, and an altimeter.

In light of the above, it has shown that the use of an integrated position and direction system is has been known in the art, at least at the time the present invention was made.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6,127,969	Van Roekel	Oct. 2000
6,163,751	Van Roekel	Dec. 2000
6,430,505	Green	Aug. 2002
6,529,827	Beason et al	Mar. 2003

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6,529,828	Williams et al	Mar. 2003
6,587,788	Green	Jul. 2003
US20020006800	Mohi	Jan. 2002
US20020032035	Teshima	Mar. 2002

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques H Louis-Jacques whose telephone number is 703-305-9757. The examiner can normally be reached on M-Th 6:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jacques H Louis-Jacques
Primary Examiner
Art Unit 3661

/jlj
July 15, 2004

Jacques H. Louis-Jacques
JACQUES H. LOUIS-JACQUES
PRIMARY EXAMINER